



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/743,677	12/22/2003	Richard C. Abbott	17238-6113	7799

57449 7590 03/27/2006

SHEEHAN PHINNEY BASS & GREEN, PA
c/o PETER NIEVES
1000 ELM STREET
MANCHESTER, NH 03105-3701

EXAMINER

HECKENBERG JR, DONALD H

ART UNIT	PAPER NUMBER
----------	--------------

1722

DATE MAILED: 03/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/743,677	Applicant(s) ABBOTT ET AL.	
	Examiner Donald Heckenberg	Art Unit 1722	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 27-43 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 27-43 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 1722

1. A request for continued examination (RCE) under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office Action has been withdrawn pursuant to 37 CFR 1.114.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 27-40 are rejected under 35 U.S.C. 102(e) as being anticipated by Jia (U.S. Pat. App. Pub. No. 2003/0141609; previously of record).

Jia discloses a molding system. The mold comprises a housing (20) having an opening therein (see Fig. 3). A shell (35) is provided that fits within the opening of the housing,

Art Unit: 1722

with the shell having a cavity therein that receives molding material (146). A resistive heater (220) is located between the housing and the shell. The heater inherently has geometry and material properties that define some predetermined power distribution, thereby anticipating claim 27. Further, the heater has a width, path length, thickness, spatial distribution, and resistivity. As such, Jia anticipates these limitations of the claims.

Jia further discloses a coating layer (223) as an electrical insulation and heat resistive barrier between the heater and the housing (§ 51). Jia also discloses the mold to comprise a cooling jacket (§ 45).

Claims 28 and 29 recite features of the apparatus in terms of the resulting temperature distribution in the mold. Written as such, these claims relate to how the apparatus is used, not the apparatus structure. The temperature distribution is dependent, for example on the power supplied to the heater, as well as the timing and use of the cooling mechanism of the apparatus, and still further the molding material itself. It is well settled that the use of claimed apparatus is not germane to the issue of its patentability. If the prior art structure is capable of performing the claimed use, it anticipates the claim. In re Casey, 370 F.2d 576, 580, 152 USPQ 235, 238 (CCPA 1967);

Art Unit: 1722

In re Otto, 312 F.2d 937, 939, 136 USPQ 458, 459 (CCPA 1963);

MPEP § 2115. In this case, Jia discloses a molding apparatus with all of the structural features, notably further including a controller which operates with the resistive heater (see for example, ¶¶ 41 and 49). As such, Jia is capable of operating in the claimed matter with respect to temperature distribution, and therefore anticipates the claims.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in Graham v. John Deere Co., 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary.

Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claim 43 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jia.

Jia discloses the molding apparatus as described above, notably including embodiments provided with a plurality of heaters by having heaters on the upper and lower mold shells (see ¶ 55). To add more heaters to the apparatus of Jia would allow for the multiplied effect of more heat being generated. Generally, the duplication of a known part for a multiplied effect has no patentable significance unless it can be shown that there is a new and unexpected result. See In re Harza, 274

Art Unit: 1722

F.2d 669, 124 USPQ 378 (CCPA 1960); St. Regis Paper Co. v. Bemis Co., Inc., 549 F.2d 833, 193 USPQ 8 (CA7 1977). In this case, it would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to have modified Jia to further comprise additional heaters in one of the mold shells because this would allow for providing additional heat in the molding operation.

8. Claims 41 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jia in view of Blackmore (U.S. Pat. No. 6,146,576; previously of record).

Jia discloses the molding apparatus as described above. Jia does not disclose the mold to comprise thermocouples.

Blackmore also discloses a molding apparatus. The apparatus includes a plurality of thermocouples for the purpose of allowing for temperature control of the apparatus (cl. 10, 11. 61-67).


It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to have modified the apparatus of Jia to further include a plurality of thermocouples because this would allow for temperature control of the apparatus as suggested by Blackmore.

Art Unit: 1722

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Donald Heckenberg whose telephone number is (571) 272-1131. The examiner can normally be reached on Monday through Friday from 9:30 A.M. to 6:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith, can be reached at (571) 272-1166. The official fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <<<http://pair-direct.uspto.gov>>>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at (866) 217-9197 (toll-free).

 3-20-6
Donald Heckenberg
Primary Examiner
A.U. 1722